Contractor Saw Modifications

by Ken in Regina

Here are a number of modifications, improvements, accessories that I added to my contractors saw. Although my saw is a Delta, many of these are things that can be done to any brand saw, and not just to the contractors version.

Blade guard

I started by modifying the OEM Delta guard (the Delta is typical of what all other manufacturers provide).

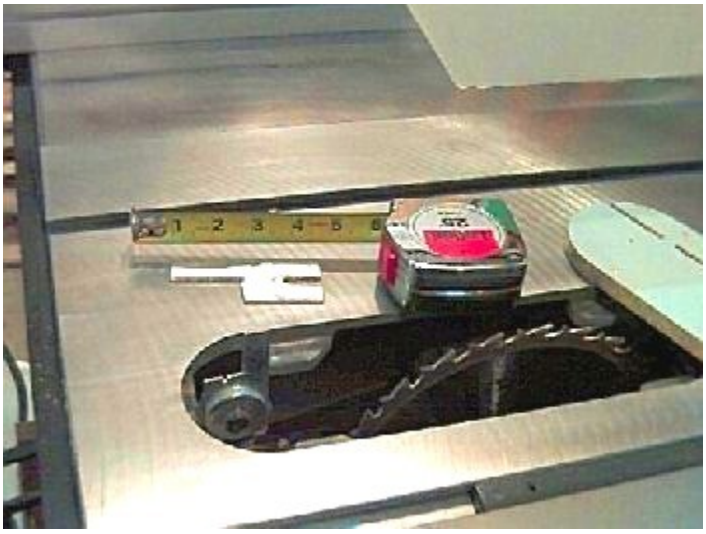
For anyone who wants to give it an honest shot, here's one mod you **will** want to make to it so you can make it stay up when you want.

Note where the little red arrow is. Just take a file and grind a little off that back corner so it misses the table top when you swing it up, and you can hook it up nicely out of the way when needed.

Splitter

The main modification was that I took the OEM splitter off and stuck it up on a shelf. Then I built a couple of splitters, one for regular thickness blades and one for thin kerf blades.

One of the really nice things on the Delta is that they made it really easy to install and remove a single splitter, and it's equally easy to make one.



This is the area we're going to be working in—behind the blade. The insert is removed for access. On the table is a splitter made of 1/8" aluminum scrap and in the saw is a splitter made from a metal joist hanger which is 3/32" thick. The leading edges filed round to avoid catching the work.

Here are closeups of the splitters from which you can easily get dimensions. Make appropriate adjustments for your particular saw.

This closeup shows the bolt and double washer mechanism that holds the splitter in place behind the blade.

Essentially the same shot although with the thinner splitter in position.

Finally, the insert is replaced with the splitter protruding from below and in position behind the blade to do its job in preventing kickbacks.

Zero Clearance Insert

Did I mention zero clearance inserts? Here is my shopbuilt ZCI plate with shopbuilt splitter. The Insert plate itself is scrap melamine.

This is the bottom of insert. Those are #4 brass screws for leveling. A homemade splitter for a thin kerf blade, and a Freud 24T rip blade is installed on the saw

Overhead Guard

I hacked together an overhead guard that I can also hook up my shop vac to. It's all made from shop scraps except the dust collector. The hose attaches to a small flange on the front upper part of the shroud.

This is a rear detail of the shroud attachment. Aluminum angle scrap w/groove allows for lateral adjustment and swivel.

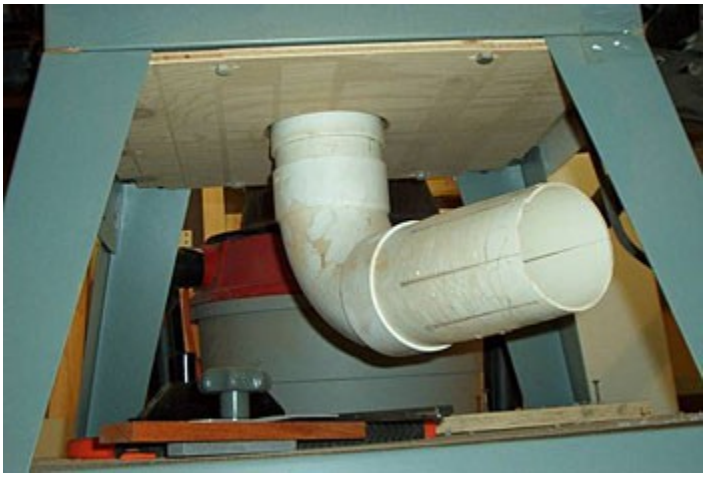
A ¾"plywood plate screwed to the ceiling allows adjustment fore and aft. Two ½" plywood verticals are slotted to allow height adjustment.

The shroud you ask? Merely a surplus plastic magazine holder. I cut openings in it for dust collection and a clear acrylic view port (it's nice to be able to see your work!).

Crosscut Sled

No shop is complete without a crosscut sled. Mine is made from shop scraps, hardboard, plywood, and 1/4" poplar for the runner. You can make it to cover the left side only, as I did; right side only as Norm Abram did on his second one; or build one that covers both sides, like the one David Marks uses. Dimensions are not critical, but the cleat across the back **must** be 90° to the blade. And if your blade isn't perfectly parallel with your miter slots, you needn't bother, either. It won't work.

Dust Collection



Here's a picture of the dust collection port underneath the saw. I bolted a piece of plywood to the bottom with a toilet flange and some white 4" sewer pipe and elbow. I did not glue any of the plastic bits together, so it's easy to change or move them to any orientation I want.

The short piece of pipe that the hose connects to was sliced, pinched together at the end and

wrapped with a couple of wraps of packing tape. The taper fits snugly inside the 4" dust collector hose.

This one shows the hose connected. I only show it because of the nifty plastic doodad (the technical name is 4" Threaded Coupler) on the end of the hose. It threads into the dust collector hose and is a perfect jam fit onto any standard 4" dust collector port. It's about 4 bucks, and is one of those rare little wonders that is cheap and works well.

To close in the back of the saw, I just used a piece of cardboard—the top of a pizza box or whatever else is handy. I cut out a slot for it to slide past the motor mount and a vertical slot for the belt and use a bit of packing tape to hold it in place. I always make a couple of spares to have around because I always forget to take it off when I tilt the blade. A bit of tilt doesn't do much damage, but a 45° tilt mangles the cardboard!

Now that I have a template I keep thr hardboard (masonite) with a couple of rare earth magnets in it. I would make it in two pieces so it's easy to get on and off.

If you have a source for sheets of magnetic stock used by the makers of signs that stick to cars, that might be a good alternative, as well.

The Blade

Of course we all have our favorite aftermarket blades: Forrest WWII, Freud, Oldham, Amana, CMT, Tenryu— they're all great blades. But what about: *the blade that comes with the saw*?

Everyone loves to hate the blade that comes with the saw, and for a long time in many cases, with good reason. Nowadays, however, some of them are pretty good —mine wasn't. I left it on a shelf collecting dust for over a year.

When I decided to try the services of a local sharpening shop without risking a good blade I brought it out and sent it over to them. They did a good job—the blade is sharp and really chews through wood now. Unfortunately, it's unusable because it has way too much runout. The workpiece is scored significantly as it passes the heel of the blade. So, now instead of dull junk I have really sharp junk. I should have checked, and so should you—if you decide to spend the money to get your OEM blade sharpened, check the runout first, to see if it's worth it.